

CLAIMS

What is claimed is:

1. A method of sealing the site of a neurosurgical procedure comprising:
applying a purified alginate solution to the site of a neurosurgical procedure in a mammal, and
adding a calcium chloride solution to form a polymer.
2. The method of claim 1, wherein the neurosurgical procedure comprises implantation of a neural probe.
3. The method of claim 1, wherein the site of the neurosurgical procedure is the central nervous system.
4. The method of claim 1, wherein the site of the neurosurgical procedure is the brain.
5. The method of claim 1, wherein the site of the neurosurgical procedure is the spinal cord.
6. The method of claim 1, wherein the mammal is a human being.
7. The method of claim 1, wherein the purified alginate solution is comprised of alginates with a molecular weight range from about 50,000 g/mol to about 200,000 g/mol.
8. The method according to claim 1, wherein the concentration of purified alginate in the purified alginate solution is about 1.00 wt% to about 2.5 wt% in water.
9. The method of claim 1, wherein the purified alginate is purified high-guluronic acid content alginate with apparent viscosity of about 20 mPas to about 200 mPas.

10. The method of claim 1, wherein the purified alginate solution further comprises one or more therapeutic drugs.

11. The method according to claim 1, wherein the concentration of calcium chloride in the calcium chloride solution is about 1.00 wt% to about 30.0 wt%.

12. A method of visualizing the site of a neurosurgical procedure comprising:
applying a purified alginate solution to the site of a neurosurgical procedure in a mammal, and
adding a calcium chloride solution to form a polymer.

13. The method of claim 12, wherein the neurosurgical procedure comprises implantation of a neural probe.

14. The method of claim 12, wherein the site of the neurosurgical procedure is the central nervous system.

15. A method of stabilizing a neural probe implanted at the site of a neurosurgical procedure comprising:
applying a purified alginate solution to the site of a neurosurgical procedure in a mammal, where the neurosurgical procedure comprises implantation of a neural probe, and
adding a calcium chloride solution to form a polymer.

16. The method of claim 15, wherein the site of the neurosurgical procedure is the central nervous system.